DOCUMENT RESUME

ED 034 715 24 SP 003 390

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TITLE The Effect of Student Ratings of Their Instructor on the Student's Achievement and Rating. Final Report.
INSTITUTION Utah Univ., Salt Lake City.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
BUREAU NO BR-9-H-014
PUB DATE Oct 69
GRANT OEG-8-9-540014-2020(058)
NOTE 23p.

EDRS PRICE EDRS Price MF-$0.25 HC-$1.25
DESCRIPTORS *Academic Achievement, College Students, College Teachers, *Effective Teaching, *Students, *Teacher Rating

ABSTRACT

A study was conducted to determine the effects of student evaluation of teachers on teaching effectiveness and on student ratings of their instructor. The effectiveness of student evaluations as a measure of teacher merit were also observed. Subjects were the students of four psychology instructors, all of whom taught separate sessions of the same course for two successive quarters and used the same textbook. On the first day of the winter quarter all students were given an exam under the pretext of obtaining data for an independent experiment. Achievement was measured by the improvement on a second exam given the last day of class, at which time students were asked to rate their instructor. During the spring quarter an identical procedure was followed except that the instructor was aware, as he had not been the previous quarter, that evaluations would be used. Major conclusions: The instructor's knowledge that he would be rated by his students (1) did not improve his effectiveness as measured by achievement tests and (2) tended to improve the rating given the instructor by the students. There was a low but significant relationship between the student's rating of how much he had learned and his test achievement. The student's evaluation of the effectiveness of a particular instructor were as valid as similar evaluations by the department chairman when compared to achievement test scores. (Achievement test, rating scale, and analyses of variance results are included.) (JS)

FINAL REPORT
Project No. 9-H-014
Grant No. OEG-8-9-540014-2020 (058)

The Effect of Student Ratings of Their Instructor On the Student's Achievement and Ratings

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SALT LAKE CITY, UTAH

October, 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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SP003390

ACKNOWLEDGEMENTS

I wish to express my thanks to Dr. Gary L. Carson for his support and assistance in the study. Appreciation to the faculty of the Psychology Department at Weber State College is gratefully extended for their whole-hearted cooperation.

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Summary

The major objectives of the study were to determine if the use of student evaluations would improve teaching, and further, to determine if permitting students to evaluate their instructor would influence their attitudes and their ratings of an instructor. A second objective was to evaluate the effectiveness of student evaluations as a measure of teacher merit.

Student achievement and student ratings when the instructor was unaware that evaluations would be used were compared to achievement when the instructor was aware that evaluations would be used. The students of four Psychology instructors, all of whom taught separate sessions of the same course for two successive quarters and used the same textbook, served as subjects. On the first day of class, Winter Quarter, all students were given an exam under the pretext of obtaining data for an independent experiment. Achievement was measured by the improvement on a second exam given the last day of class. Only at this time were students asked to rate their instructor, thereby insuring that for the entire quarter the instructor would act "as if" evaluations were not used (Note: Confidentiality of these measures was maintained).

During the Spring Quarter an identical procedure was followed except that the instructor was aware that evaluations would be used.

The major conclusions for the study were:

1. The instructor's knowledge that he would be rated by his students did not improve his effectiveness as measured by objective achievement tests.

2. The instructor's knowledge that he would be rated by his students tended to improve the rating given the instructor by the students.

3. There was a low but significant relationship between the student's rating of how much he had learned and his achievement as measured by objective tests.

4. The student's evaluation of the effectiveness of a particular instructor were, at least, as valid as similar evaluations by the department chairman when compared to objective achievement tests.

Introduction

A consistent goal of education has been to try to involve the student in his education. The present publicity given to student activism may reflect the success of this philosophy. Whether good or bad, students are involved and are demanding an even greater voice in the educational process.

One direction of activism has been the students' concern in the quality of their education. According to Vanderpol (1959), a frequent complaint, especially in the larger universities, has been that undergraduate students are ignored by the faculty and consequently do not receive adequate instructions. The critics claim that competence in teaching is not rewarded because of the pubish-or-perish dictum which relegates teaching to being an interference in activities that would gain promotion or tenure. At many campuses across the country, either with or without administrative approval, students are providing a system of rewards or punishments for teaching ability in the form of published student evaluations of the faculty (Kent, 1966).

It has not been that institutions fail to recognize teaching as one of their legitimate functions. Over 95% of the institutions that responded in a recent survey (Astin and Lee, 1966) reported that classroom teaching was a major factor in making decisions about promotion, salary, and tenure. Interestingly, when responding on the survey about how the information used to evaluate an instructor's ability was obtained, 44% reported "research and publications" as one of the methods for evaluating classroom teaching. The sources most frequently used were the evaluations by the deans, colleagues, and chairmen. One may wonder where these individuals could obtain information to evaluate classroom teaching since only 14% used classroom visitation. Inasmuch as 12% of the institutions used systematic student ratings and 41% used informal student opinions, it appears that student ratings, whether formal or informal, must serve as a major source for judgments concerning an instructor's ability.

Since student opinions are used, one may question why administrators prefer to obtain the information over a cup of coffee or in casual conversation rather than using systematic student ratings. One reason may be that the informal use of students' opinions avoids the controversy and criticism (Kent, 1966) that has arisen over the use of such measures. Without doubt, student evaluations, like any measuring device, may be poorly constructed, improperly used, and misinterpreted. However, many of the factual questions concerning student evaluations have been researched. Student evaluations, if 25 or more student ratings are averaged, are as reliable as the better mental tests presently used (Remmers, 1963). The evaluations are independent of the sex of the student (Lehmann, 1961), the grade the student expects (Voeks and French, 1960), and difficulty of the course (Clark and Keller, 1954). Low but significant correlations have been found between student ratings and objective measures of achievement for the instructor's students (Remmers, Martin & Elliott, 1949; Russell & Bendig, 1953).

Student ratings could be used as a reasonably convenient, reliable, and valid instrument to measure some aspects of teacher effectiveness. However, the very important question remains. "Do they bring about any improvement of teaching?" In a review of the literature the author found no studies which could directly answer this question. In order to answer the question, teacher effectiveness when student evaluations are not used must be compared to teacher effectiveness when such evaluations are used. The research which indirectly deals with the question has compared student ratings of their instructors taken at one period of time with later ratings. For example, (Remmers, 1963) reviews an unpublished study by Gage, Runkel, and Chatterjee in which sixth-grade teachers changed on subsequent ratings in the direction of their pupil's ideal teacher as measured with earlier ratings. A study by Clark and Keller (1954) used a similar procedure and found that teachers' ratings improved on subsequent ratings. In such studies, the possibility that teacher effectiveness would have been greater had student evaluations not been used cannot be ruled out. It is entirely possible, as Fever (1966) has suggested, that student evaluations produce a more popular, but not a better teacher. Or, in attempting to impress his students, he may increase the difficulty of the course rather than the quality of instructions. The above studies cannot resolve the question. They give no indication of how effective the teacher might have been without student ratings.

A second question of importance concerns the effect of student involvement on the students. Students are demanding and are obtaining a voice in the educational process. Will their involvement in the evaluation of their instructor influence their attitudes and evaluation of a course and the instructor?

The experimental problem, in considering these questions, is to determine if the process of taking a measurement (student ratings) has an effect on the behavior we wish to measure (teacher effectiveness) and on subsequent measurements (student ratings). The necessary control requires a measure of teacher effectiveness and student ratings when student ratings are not used. A direct comparison could then be made of teacher effectiveness and student ratings when student ratings are used. This ideal control was approximated in the present study by comparing teacher effectiveness and student ratings when the instructor was unaware that such measures were being obtained to a subsequent quarter when the instructor was aware that such measures would be obtained. (Note: Measures taken without the instructor's knowledge were confidential and the results were only available to the individual instructor).

The major questions considered in the proposed study were:

1. Will student ratings of an instructor improve his teaching effectiveness as measured by objective achievement tests?

2. Will an instructor's knowledge that he is being evaluated by his students lead to different ratings than ratings previously obtained without the instructor's knowledge?

In addition, the study will permit an evaluation of the validity of student ratings when compared to other ratings. The specific questions are:

3. Is there a relationship between a student's rating of teacher-effectiveness and the student's achievement as measured by objective achievement tests?

4. Can students' ratings, or ratings by the department chairman best predict teacher-effectiveness as measured by objective achievement tests?

Methods

The students and instructors in all sections of Introductory Psychology at Weber State College during Winter and Spring Quarter, 1969, were used in the study. The same textbook (Ruch, 1967) was used by all instructors and the policy of the department has been to encourage the instructors to maintain comparable sections.

Comparisons were made of the students' achievement and ratings of their instructor obtained without the instructor's knowledge during Winter Quarter to similar measures obtained with the full instructor's awareness during Spring Quarter.

In order to measure achievement a multiple choice Psychology Test was developed. The test questions were selected to provide a general review of the assigned textbook, and were intended tobe general in the sense that they covered material common to most Introductory Psychology textbooks. The examination was similar to tests developed by individual instructors since they were designed to cover the same topics. However, the Psychology Test was developed independently.

In the development of the Psychology Test, approximately 10 questions from each chapter of the assigned textbook were used for a total of 150 questions. The complete test was given to 85 students who had completed Introductory Psychology, and following an item-analysis two questions from each chapter were dropped leaving a total of 120 questions. The remaining 120 questions were divided into two forms (A & B) with each chapter of the textbook equally represented in each form. The two forms were given as part of the final exam in an Introductory Psychology class. An item-analysis was completed using the total points that the students had previously earned on eight unit-tests as the criterion. The 45 questions (three from each chapter) in each form which best predicted the criterion were retained.

The two forms were then given at one sitting to 42 sophomore nurses and 36 sophomore psychology students. The correlation between Form A and Form B was .81. Initially, the measure of achievement in Introductory Psychology was to be the difference in scores between a pre-test (Form A) given at the beginning of the quarter and an equivalent post-test (Form B)

given as part of the final exam. However, it was felt that the correlation between the two forms was too low to justify their use as equivalent forms. Consequently, Form A (see Appendix A) was used as both the pre- and post-test. It was recognized that previous exposure to the test could influence the second testing. However, the procedure was deemed justifiable since the previous exposure and influence would be the same for all students and, in addition, the security of the test was rigidly maintained. The examination was carefully proctured and all copies of the examination were returned. Further, none of the instructors had seen the exam.

The Achievement Score (AS) was defined as the difference between the first and the second exam.

There was approximately 12 weeks between the first and second administration of the test and the test-retest correlation was .67 (N=492). As an estimate of validity, the achievement score was correlated with the student's grade point average. The correlation was .59 (N=570).

The rating scale (See Appendix B) was adapted from a form presently used at the University of Utah. The students were asked to rate their instructor on each of five categories using a scale from one (low) to seven (high). Six scores were obtained for each instructor from the rating scale; one for each of the categories and a total score.

During Winter Quarter the Psychology Test, as the pre-test, was administered on the first day of class in all sections of Introductory Psychology. The exam was given under the pretext of obtaining norms for a new test in order to disguise the purpose of this study from the instructors. Introductory classes have frequently been used in the past for such purposes.

The next contact with the instructor was two days before the end of the quarter. At this time a meeting was scheduled with the faculty and the entire study was discussed. It was felt that with only two days remaining in the quarter, the instructor's knowledge that he would be rated by his students could not have a significant influence. Furthermore, obtaining the permission and support of the instructors was deemed more important than the limited influence of the instructor's knowledge this late in the quarter. Fortunately, all faculty members were supportive and agreed to cooperate in the study.

The post-test and rating scale were administered under the direction of the principle investigator rather than the instructor as part of the final examination. The students were informed that the rating scale would have no influence on their course grade and that no individual would be identified in any report to the instructor.

During Spring Quarter the pre-test was administered on the first day of class and the post-test and rating scale were given during the final examination. The procedure was identical to Winter Quarter except that the instructor was aware of the purpose of the study during the entire quarter.

As an estimate of the validity of student ratings, the correlation between the student's rating of how much he had learned from his instructor and the student's Achievement Score was determined.

During Spring Quarter the mean Achievement Score was determined for each of the six Introductory Psychology sections. Each section was taught by a different instructor. The sections were then rank-ordered from the section with the highest mean achievement to the section with the lowest mean achievement. This ranking, used as a criterion, was compared to rankings on achievement made by the chairman of the department. Further, the mean rating on "How much did you learn from this instructor?" was determined for each of the six sections. The sections were then rank-ordered on the basis of the mean rating and were compared to the criterion; ranking on achievement.

Results

As variables which might have influenced the results, the student's sex and grade point average (GPA) were first considered.[1]

There was no significant relationship between the sex of the student and the student's achievement score or rating. However, there was a tendency for females to have a slightly higher GPA than males.

The student's GPA was significantly related to his achievement score ($r = .59, N = 570, p < .01$) and to his rating on item No. 1, "How much did you learn from this instructor ($r = .11, N = 628, p < .05$)?" The study involved a comparison between Winter and Spring Quarter for instructors on Achievement Scores and ratings. The GPAs were subjected to a 4 X 2 analysis of variance incorporating instructors and quarters respectively. The analysis is summarized in Table 1.

Table 1

Summary of Analysis of Grade Point Average

Source	df	MS	F	Prob.
Instructors	3	.49	1.07	>.10
Quarter	1	.40	.86	>.10
I X Q	3	.75	1.62	>.10
Error	558			
Total	565			

[1] A factoral analysis (GPA X Sex X Instructor X Quarter) was originally considered. However, this was not followed since a severe reduction in cell frequency would have been required.

No significant source of variance was found between quarters or between instructors. GPA as a variable was assumed to be constant for all instructors across both quarters.

To ascertain if Achievement Scores varied between instructors the scores were subjected to the same analysis (summarized in Table 2) as were GPAs.[2]

Table 2

Summary of Analysis for Achievement Scores

Source	df	MS	F	Prob.
Instructors	3	164.25	6.22	<.001
Quarter	1	8.95	.34	>.10
I X Q	3	18.32	.69	
Error	457	26.42		
Total	464			

The only significant source of variance was between instructors. The mean Achievement Score during Winter Quarter, when the instructors were not aware they would be rated by students, was 6.22. The Mean Achievement Score for Spring Quarter dropped to 5.92; however, the change was not significant.

As a further indication of achievement, the Post Scores for Winter and Spring were compared. As can be seen in the analysis of variance in Table 3, the only significant source of variance was again between instructors.

Table 3

Analysis of Variance for Post Scores

Source	df	MS	F	Prob.
Instructors	3	264.76	8.24	<.001
Quarter	1	3.93	.12	>.10
I X Q	3	27.07	.84	>.10
Error	522			

Based on the measures of achievement used in the study, it was apparent that the instructor's knowledge that he would be evaluated by his students had no significant influence on his teaching effectiveness.

The measure of achievement is, of course, limited to the tests used. However, if the student's grade point average is used as a criterion, the Achievement Score was at least comparable to the

[2]Data for three other instructors could not be used in this analysis since they did not teach both quarters or imcomplete data was obtained during one quarter.

tests used by the individual instructors. The correlation between points scored on the instructor's tests and GPA was .57 (N = 565). The correlation between the achievement score and GPA was .59 (N = 570).

Comparisons on student ratings between Winter and Spring Quarter were made for four instructors. For item No. 1, 2, 3, 4, 5, and total evaluation, on the rating, the summaries of the analysis of variance are presented in Tables 4, 5, 6, 7, 8, and 9.

Table 4

Analysis of Variance for Rating Scale Item No. 1, "How Much Did you Learn From This Instructor?"

Source	df	MS	F	Prob.
Instructor	3	18.99	13.00	<.001
Quarter	1	4.04	2.77	>.05
I X Q	3	2.45	1.68	>.05
Error	522			

Table 5

Analysis of Variance for Rating Scale Item No. 2, "Rate the Extent to Which the Instructor's Lectures and Other Material Were Well Prepared."

Source	df	MS	F	Prob.
Instructor	3	5.98	4.54	<.01
Quarter	1	3.04	2.31	>.10
I X Q	3	7.13	5.42	<.01
Error	522			

Table 6

Analysis of Variance for Rating Scale Item No. 3, "Rate the Extent to Which the Instructor Stimulated Your Interest in the Course."

Source	df	MS	F	Prob.
Instructor	3	35.52	18.0	<.001
Quarter	1	11.77	5.96	<.01
I X Q	3	5.69	2.88	<.05
Error	522			

Table 7

Analysis of Variance for Rating Scale Item No. 4, "Was the Instructor Considerate of and Interested in his Students?"

Source	df	MS	F	Prob.
Instructor	3	34.07	32.2	<.001
Quarter	1	.10	.10	>.10
I X Q	3	1.86	1.76	>.10
Error	522			

Table 8

Analysis of Variance for Rating Scale Item No. 5, "Would You Recommend this Course from this Instructor?"

Source	df	MS	F	Prob.
Instructor	3	67.30	37.0	<.001
Quarter	1	1.27	.70	>.10
I X Q	3	1.67	.92	>.10
Error	522			

Table 9

Analysis of Variance for the Total Score on the Rating Scale

Source	df	MS	F	Prob.
Instructor	3	617.21	26.4	<.001
Quarter	1	64.30	2.74	>.05
I X Q	3	43.80	1.87	>.10
Error	522			

All items on the Rating Scale may be discussed as a whole since the items were closely interrelated and the results were very similar. For all five items and the total score on the rating scale there was a significant source of variance between instructors. There was also a tendency for the ratings to improve when the instructor knew that his students were rating him. However, this was only significant with item No. 3.

The intercorrelations between the five items on the Rating Scale and the Total Score are shown in Table 10.

Table 10

Intercorrelations Between Items on the Rating Scale and the Total Score

Items	1	2	3	4	5	Total
1	-					
2	.52	-				
3	.66	.50	-			
4	.43	.39	.50	-		
5	.62	.55	.72	.60	-	
Total	.81	.73	.86	.70	.88	-

Note: All correlations were significant at $p < .01$

It is apparent that the ratings on the separate items were not independent. However, despite the very strong halo effect, the ratings do appear to be valid. First, all items reliable differentiate between instructors, and second, with the exception of No. 2, all items and the total score were significantly related to Achievement Scores ($p < .01$).

Item No. 1 which asked the student to rate how much he had learned from the instructor had a correlation of .19 with Achievement Scores. The correlations with the Achievement Score was .08, .15, .16, .20, and .19 for items No. 2, 3, 4, 5, and total score respectively.

In 11 sections of Psychology, the instructor assigned points based on tests, student reports, class participation, etc. The total number of points was used by the instructor as a measure of achievement and was the basis for the course grade. Correlations were determined for each section between the student's rating of how much he had learned from the intructor (Item No. 1) and the total number of points given him by the instructor. For the 11 sections, the correlations ranged from .22 to .55 with an average of .37. All but two of the correlations were significant at at least the .05 level. Evidently the student's rating of how much he has learned provided a valid indication of how much he had achieved in a particular class.

The six sections of Introductory Psychology taught during Spring Quarter were rank ordered on the basis of mean Achievement Scores. The department chairman then ranked the sessions according to his subjective evaluation of their achievement. The sessions were then ranked according to their mean rating of how much they had learned (Rating Item No. 1). The rank order correlation between Achievement Scores and the Department chairman's ranking was .71, the correlation between Achievement Scores and the mean rating by the students was .77.

Conclusions

The major conclusions for the study were:

1. The instructor's knowledge that he would be rated by his students did not improve his effectiveness as measured by objective achievement tests.

2. The instructor's knowledge that he would be rated by his students tended to improve the ratings given the instructor by the students.

3. There was a low but significant relationship between the student's ratings of how much he had learned and his achievement as measured by objective tests.

4. The student's evaluation of the effectiveness of a particular instructor were, at least, as valid as similar evaluations by the department chairman when compared to objective achievement tests.

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APPENDIX A.--PSYCHOLOGY TEST

PSYCHOLOGY TEST

1. Which of the following is closest to an operational definition of intelligence?

    1. power of understanding
    2. ability to comprehend
    3. mental alertness
    4. score on a particular test

2. The study of unconscious processes is of keen interest to the:

    1. behaviorists
    2. Gestaltists
    3. phrenologists
    4. psychoanalysts

3. Which of the following questions is most likely to be answerable by scientific methods rather than by other ways of gaining knowledge?

    1. is watching horror television programs good for children?
    2. how old is the average child when he is able to make free decisions?
    3. should intellectually retarded children be educated by the state?
    4. under what circumstances will these individuals steal?

4. Which of the following statement is <u>most</u> true?

    1. development is determined only by heredity
    2. development depends upon an interaction between genetic inheritance and environment
    3. heredity is of very little importance in human development
    4. environmental effects begin only at birth

5. The pituitary gland is closely associated with which brain center:

    1. the thalamus
    2. hypothalamus
    3. cortex
    4. corpus callosum

6. The all-or-none law asserts:

    1. a nerve impulse is propagated the length of a cell at full strength
    2. all nerve fibers fire at once
    3. the stronger the stimulus the larger the impulse
    4. all of the above

7. After a neuron has fired, there is a short period of time during which the neuron will not fire again unless an unusually strong stimulus is given. This period is called:

    1. relative refractory phase
    2. period of passivity
    3. absolute refractory phase
    4. inertial phase

8. If gene A is dominant and produces a special kind of feeblemindedness, and B is its corresponding recessive gene and produces normal intelligence, which of the following pairings would produce a normal child?

    1. A-A
    2. A-B
    3. B-B
    4. none of these

9. Instinctive behavior is characterized as being:

    1. inborn
    2. present among all members of a species
    3. appearing "full-blown" when an adequate stimulus is presented
    4. all of the above

10. The "reality principle" is served by the:

    1. superego
    2. libido
    3. ego
    4. id

11. The central idea in Carl Rogers' client-centered therapy is:

    1. analysis of the patient's problems
    2. total acceptance of and permissiveness toward the patient
    3. the role of the therapist as a model of improved behavior
    4. eliminating the undesirable aspects of the patient's personality

12. Which of the following is a projective test?

    1. Minnesota Multiphastic Personality Inventory
    2. Thematic Apperception Test
    3. Edwards Personal Preference Schedule
    4. Cattell 16 PF Questionnaire

13. As a measure of variability or dispersion is:

    1. the standard deviation
    2. the percentile rank
    3. the Z-score
    4. the median

14. If a test is valid, it:

    1. relates to the criterion
    2. yields the same score for the same individual from one testing to another
    3. equates individuals
    4. yields differences within groups

15. Standardization of tests serves to:

    1. lose the individual student's identity in the group
    2. insure that every examinee takes the test under the same conditions
    3. permit the development of an interval scale
    4. provide a base-line against which scores can be interpreted

16. Very rapid learning occurring in some animals at certain crucial stages of development is called:

    1. instinct
    2. homeostasis
    3. intelligence
    4. imprinting

17. Suppose a not very adequate actress learns to weep on cue in the script by rehearsing with onion juice every time she is supposed to shed tears in the play. The conditioned stimulus is:

    1. shedding tears
    2. onion juice
    3. the script cue
    4. none of the above

18. One way in which classical and instrumental conditioning differ is that in instrumental conditioning:

    1. the reward will not appear without the response
    2. phenomena of stimulus and response generalization do not occur
    3. an established response is given to a new stimulus
    4. discrimination cannot be measured.

19. Phenomena common to classical and instrumental conditioning include:

    1. spontaneous recovery
    2. stimulus generalization
    3. discrimination
    4. all of the above

20. A major disadvantage of punishment is that it:

    1. produces only a temporary suppression of a response
    2. works only with animals
    3. increases the frequency of incorrect response
    4. does not indicate the correct response

21. One of the differences between escape and avoidance conditioning is that:

    1. in escape conditioning, thepainful stimulus follows the response
    2. in escape conditioning, the painful stimulus always precedes the response
    3. in avoidance conditioning, the painful stimulus always precedes the response
    4. in avoidance conditioning, the painful stimulus always follows the response

22. "The minimum amount of energy which a person can detect" defines a/an:

    1. upper threshold
    2. difference threshold
    3. mid-threshold
    4. absolute threshold

23. The human being with excellent hearing can detect vibrations of particles ranging in frequency (cycles per second) from:

    1. 400 - 40,000
    2. 6 to 100,000
    3. 1,000 - 20,000
    4. 16 to 20,000

24. The stimuli for olfactory sensations are:

    1. random mixture of white light
    2. movements of the body
    3. changes in temperature
    4. molecules in the air from volatile substances

25. Perceptual-isolation experiments demonstrate man's dependence on:

    1. frequent periods of reduced stimulation to prevent hyperarousal
    2. other people to prevent panic from self-induced fear
    3. stimulation to preserve normal functioning and personality in integration
    4. physical activity to prevent mental fatigue and boredom

26. When an infant's mother calls to him from across the visual cliff apparatus, he will probably:

    1. refuse to crawl on the deep side
    2. crawl on the deep side if she coaxes him
    3. crawl on the deep side if he has patted the glass with his hand
    4. refuse to crawl on both the deep and shallow sides

27. Which of the following is <u>not</u> an example of perceptual constancy:

    1. a baseball seems to be the same size regardless of whether it is in your hand or in left field
    2. ice and steam are both recognized as forms of water
    3. a building appears to be the same shape whether it is seen from the ground or from the air
    4. a shoe looks black in both sunshine and shade

28. The hypothesis associated with the name of Whorf asserts that:

    1. redundant languages provide for better communication
    2. English differs fundamentally from other Indo-European languages
    3. our view of the world is colored by the language we speak and particularly its grammar
    4. all languages of the world have fundamentally the same processes among different people

29. Lip movements as one reads illustrates:

    1. peripheral facilitation of the central processes
    2. the desire to hold to the S-R interpretation of behavior
    3. peripheral control of thought
    4. evidence for central theories of thought

30. Human beings are able to solve a double alternation problem more rapidly than animals because they can be:

    1. verbal mediation
    2. environmental cues
    3. implicit muscular movements as cues
    4. implicit speech

31. Baby monkeys fed on wire "mothers" prefer to cling to:

    1. the wire "mother"
    2. the cloth "mother"
    3. both wire and cloth "mothers" equally
    4. no "mothers" at all

32. Which of the following is controlled, in part, by the hypothalamus?

    1. body temperature
    2. thirst
    3. sex
    4. all of the above

33. Electrical stimulation of a particular area in the hypothalamus causes undereating. Surgical removal of this area results in:

    1. death
    2. coma
    3. overeating
    4. complete refusal to eat

34. The first stage of the general-adaptation syndrome is the:

1. resistance to stress stage
2. hormonal discharge stage
3. alarm reaction
4. period of lowered resistance

35. The experiment with Little Albert and the white rat illustrates:

1. emotional conditioning
2. cultural differences
3. maturation of emotional patterns
4. Schlosberg's surface of emotions

36. Which statement regarding the functions of the sympathetic and parasympathetic divisions of the autonomic nervous system is true?

1. the parasympathetic system is dominant in excited emotional states
2. the sympathetic system is dominant in quiescent emotional states
3. the two systems usually produce opposite effects
4. both systems have nerve connections to entirely different organs

37. Psychosis differs from neurosis in that psychosis:

1. is more severe and incapacitating
2. involves hospitalization
3. has a demonstrable organic cause
4. involves bizarre behavior

38. Mr. X is deceptive and dishonest but does not like to acknowledge these traits in himself. "You can't trust most people further than you can throw them," he tells others. This illustrates:

1. rationalization
2. projection
3. denial
4. reaction-formation

39. A delusion may best be defined as an/a:

1. false perception
2. illusion
3. false or inaccurate beliefs and/or thought processes
4. displaced frustration

40. Transference:

1. always involves false perceptions
2. involves a transfer of interest from the therapist to the patient
3. occurs when the therapist becomes the object of emotional response
4. is a sign that therapy will probably fail

41. Which of the following is a major tool of psychoanalysis:

    1. interpreting and overcoming resistances
    2. free association
    3. dream interpretation
    4. all of the above

42. The removal of specific symptoms, such as sexual frigidity or phobias, is a criterion of successful therapy which would most likely be:

    1. accepted by all therapists
    2. rejected by all therapists
    3. accepted by behavior therapists
    4. accepted by psychoanalytic therapists

43. When groups of subjects judged the lengths of lines, yielding to group pressure did NOT depend on:

    1. absolute line length
    2. clarity of conditions
    3. individual differences
    4. size of opposition

44. In our culture, a change from our present form of government would probably result in the greatest hostility if the new government were:

    1. autocratic
    2. socialistic
    3. laissez-faire
    4. an elected triumvirate

45. A pattern of behavior expected of an individual in a certain position in a social group is called:

    1. a social norm
    2. a vocation
    3. a social status
    4. a role

APPENDIX B.--RATING SCALE

TEACHER EVALUATION

The following questions concerning faculty evaluation require a response on a seven-point scale. Consider four (4) to represent the average teacher at this college. Indicate your evaluation of the instructor by placing X on the answer sheet under the number that corresponds to your rating.

1. How much did you learn from this instructor?

Very Little	1	2	3	4	5	6	7	Very Much

2. Rate the extent to which the instructor's lectures and other material were well prepared.

Poorly Prepared	1	2	3	4	5	6	7	Well Prepared

3. Rate the extent to which the instructor stimulated your interest in the course.

Very Little	1	2	3	4	5	6	7	Very Much

4. Was the instructor considerate of and interested in his students?

Inconsiderate & Disinterested	1	2	3	4	5	6	7	Considerate & Interested

5. Would you recommend this course from this instructor?

Not At All	1	2	3	4	5	6	7	Very Highly